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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,317	08/01/2001	Stephen L. Heston	1588-3455	5053

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EXAMINER

LOWE, MICHAEL S

ART UNIT PAPER NUMBER

3652

DATE MAILED: 10/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/920,317

Applicant(s)

HESTON ET AL.

Examiner

Michael S Lowe

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rollers being movable between floor and open positions must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities: On page 4, first paragraph, items 25 and 27 are called both a "suspension point" and "guide".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-14, are rejected under 35 U.S.C. 102(b) as being anticipated by Krebs (US 4,055,257).

Re claim 1, Krebs teaches an infeed conveyor 102 delivering serially items for stacking; a row conveyor 37 receiving selected ones of items from the infeed conveyor 102 and a layer head 39 receiving the items from the row conveyor 37; said row conveyor 37 and layer head 39 being reciprocated vertically and independently. It is noted that the bundles (items) of Krebs are nothing but vertical rows.

Re claim 2, Krebs teaches the layer head 39 occupying a space above at least one of a pallet and a stack of layers on a pallet and discharges a layer of items through a floor thereof.

Re claim 3, Krebs teaches the floor of the layer head 39 comprises a set of free rollers spanning a pair of chains and movable between a floor position and an open position which allows a layer to drop through a plane corresponding to said floor position.

Re claim 4, the layer head 39 includes at least one upward facing support surface adjacent the rollers when the rollers are positioned in said floor position.

Re claim 6, Krebs teaches the layer head 39 having a pair of side clamps 220, 222 movable inward and toward one another to engage for compression a layer of items resting on the layer head 39.

Re claims 7-8, Krebs teaches a layer conditioning mechanism compressing together a layer of items resting thereon in at least first and second dimensions mutually orthogonal directions.

Re claim 9, Krebs teaches the layer head including a pair of chains maintained in a generally L-shaped path and carrying thereacross and along corresponding segments

thereof a set of free rollers occupying a floor position when located along a horizontal portion of said L-shaped path and occupying an open position when located along a vertical portion of said L-shaped path.

Re claim 10, Krebs teaches the layer head including a set of free rollers movable between a floor position and an open position, said rollers having a length corresponding to a tightly-packed layer resting thereon when said rollers are in said floor position and dropping said layer through a plane containing said floor position when moved to said open position.

Re claim 11, Krebs teaches a pair of upward facing support surfaces at respective ends of said rollers when located in the floor position.

Re claim 12, Krebs teaches a method through the obvious method of operation of an apparatus. Krebs teaches a row conveyor 37 receiving selected ones of items from the infeed conveyor 102 and moving the row conveyor to a height coincident with a layer head 39 and the layer head 39 receiving the items from the row conveyor 37 and then dropping the layer through the floor onto a stack of layers. It is noted that the bundles (items) of Krebs are nothing but vertical rows.

Re claim 13, Krebs teaches conditioning by compressing a layer of items on the layer head and dropping the layer through the layer head.

Re claim 14, Krebs teaches the step of dropping comprising moving from a supporting position below the layer a set of rollers to withdraw support thereof and allow the layer to drop vertically through the layer head.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krebs (US 4,055,257) in view of Lassig (US 4,022,334).

Re claim 1, Krebs teaches an infeed conveyor 102 delivering serially items for stacking; a row conveyor 37 receiving selected ones of items from the infeed conveyor 102 and a layer head 39 receiving the items from the row conveyor 37; said row conveyor 37 and layer head 39 being reciprocated vertically and independently. It is noted that the bundles (items) of Krebs are nothing but vertical rows.

Presuming that the recitation of "rows" in claim 1 limits the invention to horizontal rows, the following ground of rejection is also appropriate. Lassig teaches moving horizontal rows of items from a row conveyor 35 onto a layer head 41 and then onto a pallet 46 in order to more efficiently move groups of items. It would have been obvious to one of ordinary skill in the art to have added the pallets and convey horizontal rows as taught by Lassig rather than single bundles in order to more efficiently move groups of items.

Re claim 2, Krebs as modified by Lassig teaches the layer head 39 occupying a space above at least one of a pallet and a stack of layers on a pallet and discharges a layer of items through a floor thereof.

Re claim 3, Krebs teaches the floor of the layer head 39 comprises a set of free rollers spanning a pair of chains and movable between a floor position and an open position which allows a layer to drop through a plane corresponding to said floor position.

Re claim 4, the layer head 39 includes at least one upward facing support surface adjacent the rollers when the rollers are positioned in said floor position.

Re claim 5, Krebs does not teach a pivoting dead plate although compressing a layer is taught as well as a pivoting plate 104 that selectively limits item movement such that plate 104 is movable between a generally horizontal position facilitating transfer of items and a clamping position engaging and thus somewhat compressing a stack of items. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Krebs to have another pivoting plate similar to plate 104 for the layer head 39 in order to achieve an even tighter compression of the items since the items would be pressed then from all sides.

Re claim 6, Krebs teaches the layer head 39 having a pair of side clamps 220, 222 movable inward and toward one another to engage for compression a layer of items resting on the layer head 39.

Re claims 7-8, Krebs teaches a layer conditioning mechanism compressing together a layer of items resting thereon in at least first and second dimensions mutually orthogonal directions.

Re claim 9, Krebs teaches the layer head including a pair of chains maintained in a generally L-shaped path and carrying thereacross and along corresponding segments

thereof a set of free rollers occupying a floor position when located along a horizontal portion of said L-shaped path and occupying an open position when located along a vertical portion of said L-shaped path.

Re claim 10, Krebs teaches the layer head including a set of free rollers movable between a floor position and an open position, said rollers having a length corresponding to a tightly-packed layer resting thereon when said rollers are in said floor position and dropping said layer through a plane containing said floor position when moved to said open position.

Re claim 11, Krebs teaches a pair of upward facing support surfaces at respective ends of said rollers when located in the floor position.

Re claim 12, Krebs teaches a method through the obvious method of operation of an apparatus. Krebs teaches a row conveyor 37 receiving selected ones of items from the infeed conveyor 102 and moving the row conveyor to a height coincident with a layer head 39 and the layer head 39 receiving the items from the row conveyor 37 and then dropping the layer through the floor onto a stack of layers. It is noted that the bundles (items) of Krebs are nothing but vertical rows.

Presuming that the recitation of "rows" in claim 1 limits the invention to horizontal rows, the following ground of rejection is also appropriate. Lassig teaches moving horizontal rows of items from a row conveyor 35 onto a layer head 41 and then onto a pallet 46 in order to more efficiently move groups of items. It would have been obvious to one of ordinary skill in the art to have added the pallets and convey horizontal rows



as taught by Lassig rather than single bundles in order to more efficiently move groups of items.

Re claim 13, Krebs teaches conditioning by compressing a layer of items on the layer head and dropping the layer through the layer head.

Re claim 14, Krebs teaches the step of dropping comprising moving from a supporting position below the layer a set of rollers to withdraw support thereof and allow the layer to drop vertically through the layer head.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bruce (US 3,520,422) teaches vertical moving decks and a pivoting dead plate.

McWilliams (US 3,625,376) teaches vertically movable conveyors.

Carlson (US 3,669,282) teaches roller curtains.

Verrinder (US 3,263,827) teaches vertically movable conveyor deck.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S Lowe whose telephone number is 703-305-1940. The examiner can normally be reached on 6:30am-3:30pm M-F; alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 703-308-3248. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

msl  
October 9, 2002

*Kathy Matecki*

**KATHY MATECKI  
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